Sample Handling and Chain of Custody

1.0 APPLICATION

This procedure details the methods of tracing samples that will be transferred to/from the laboratory. Samples should be traceable from collection or receipt in the laboratory through preparation and analysis to final archival or disposal. This process ensures the integrity of the samples from the time of collection through sample disposal. Custody is defined as having control of the sample in one or more of the following manners: physical possession, in person's view after taking possession, secured by a person in a manner that prevents tampering of sample, and/or secured by a person in an area restricted to authorized personnel. The sample custodian is the person assigned the responsibility for custody of the sample at a given field site, laboratory, or testing facility.

2.0 TRANSFERRING CUSTODY

Record is in permanent ink on a Chain-of-Custody Form for receiving samples from the field and/or sediment preparation laboratory to a biological laboratory. The Chain-of-Custody Forms travel with the samples during the transfer, and are filed in the laboratory project files. Upon arrival at the laboratory, the sample custodian examines the sample container(s) to ensure that the sample seals are intact and the sample containers have not been damaged. If any seals have been broken and/or any sample containers damaged, the sample custodian records the condition of the seals and containers on the Chain-of-Custody Form. The sample custodian takes custody of the samples by signing, dating, and noting the time in the on the Chain-of-Custody Form.

3.0 STORAGE MONITORING

All refrigerators and freezers used to store project samples, standards, and chemical solutions shall have the temperature monitored. Each refrigerator and freezer shall be equipped with thermometers capable of measuring intended temperature ranges of the unit. The temperature of each unit should be recorded at least monthly on a Temperature Log Form. The acceptable temperature ranges are 4 ± 2° C for the refrigerator and -20 ± 10° C for the freezer.

4.0 SUBDIVIDING SAMPLES

Once at the laboratory, if samples have to be subdivided and submitted to another laboratory, this information should be noted on the original Chain-of-Custody Form, and a new Chain-of-Custody Form should be initiated. With each transaction, the sample custodian relinquishes custody to the sample recipient, who then becomes the next sample custodian.

5.0 TERMINATION

If the laboratory contract requires that sample material be stored for an extended period of time, this information is noted on the Chain-of-Custody Form and the samples are stored in a locked or controlled area. The laboratory sample custodian retains custody of the samples until further action is taken. The laboratory is responsible for disposing of the samples.

If the funding agency needs to dispose of surplus sample material, they make arrangements with the testing laboratory. Once the samples are packed in appropriate shipping containers, the laboratory sample custodian relinquishes custody by signing, dating, and noting the time on the appropriate space on the Chain-of-Custody Form. Upon arrival, the funding agency contact takes custody of the samples and indicates on the form that the samples were disposed of, terminating the chain of custody. The funding agency contact should then return a copy of the Chain-of-Custody Form to the project files.

6.0 QUALITY CONTROL

A Chain-of-Custody Form will be used to document all samples. Copies will be kept in the laboratory. In-house Sample Storage Records are used to monitor the sample storage and use while at Marine Pollution Studies Laboratory.